

**PROPOSED ACQUISITION  
CONTRACT  
WEAPON SYSTEM**



303-2

*Department of Defense Budget  
for Fiscal Year 1999*

*February 1998*





# PROGRAM ACQUISITION COSTS BY WEAPON SYSTEM



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for Fiscal Year 1999*

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**DEPARTMENT OF DEFENSE  
FY 1999 BUDGET  
PROGRAM ACQUISITION COSTS  
(Dollars in Millions)**

	<b><u>AIRCRAFT</u></b>	<b><u>FY 1997</u></b>	<b><u>FY 1998</u></b>	<b><u>FY 1999</u></b>	<b><u>Page No.</u></b>
<b><u>Army</u></b>					
OH-58D	Kiowa Warrior	199.6	57.1	40.4	1
AH-64D	Longbow Apache	421.3	512.9	633.7	2
RAH-66	Comanche Helicopter	325.3	272.2	367.8	3
UH-60	Blackhawk Helicopter	286.9	292.8	220.7	4
<b><u>Navy</u></b>					
AV-8B	Harrier	374.9	329.8	377.9	5
CH-60	Helicopter	6.9	61.5	152.8	6
EA-6B	Prowler	255.5	114.4	141.1	7
E-2C	Hawkeye	357.4	380.2	457.1	8
F/A-18E/F	Hornet	2,449.8	2,455.7	3,275.3	9
T-45TS	Goshawk	309.7	297.9	363.9	10
<b><u>Air Force</u></b>					
B-2	Stealth Bomber	684.2	698.8	376.3	11
C-17	Airlift Aircraft	2,232.7	2,312.3	3,206.9	12
C-130J	Airlift Aircraft	68.8	28.2	125.8	13
CAP	Civil Air Patrol	2.6	3.0	2.6	14
E-8C	Joint Surveillance Target Attack Radar System (Joint STARS)	759.4	536.3	654.4	15
F-15E	Eagle Multi-Mission Fighter	416.0	361.8	104.2	16
F-16	Falcon Multi-Mission Fighter	279.8	176.0	125.1	17
F-22	Advanced Tactical Fighter (ATF)	1,827.4	2,032.1	2,393.1	18
C-37A/C-32A	Small/Large VCX	102.6	191.6	160.9	19
ABL	Airborne Laser	56.0	151.4	292.2	20
<b><u>DoD-wide/Joint</u></b>					
JPATS	Joint Primary Aircraft Training System	109.9	133.7	152.1	21
JSF	Joint Strike Fighter	565.2	905.0	919.5	22
V-22	Osprey	1,322.4	1,206.1	1,069.8	23
<b><u>MISSILES</u></b>					
<b><u>Army</u></b>					
ATACMS	Army Tactical Missile System	208.9	183.1	142.4	24
BAT	Brilliant Anti-Armor Submunition	94.8	140.8	183.5	25
JAVELIN	AAWS-M	200.7	146.9	330.0	26
HELLFIRE II	Laser Hellfire Missile	110.8	9.5	14.3	27
Longbow	Longbow Hellfire Missile	249.3	232.7	346.3	28
MLRS	Multiple Launch Rocket System	210.6	175.2	129.0	29



**DEPARTMENT OF DEFENSE  
FY 1999 BUDGET  
PROGRAM ACQUISITION COSTS  
(Dollars in Millions)**

		<b><u>FY 1997</u></b>	<b><u>FY 1998</u></b>	<b><u>FY 1999</u></b>	<b><u>Page No.</u></b>
<b><u>MISSILES</u></b>					
<b><u>Army Contd.</u></b>					
AVENGER	Missile System	62.4	7.2	35.3	30
<b><u>Navy</u></b>					
RAM	Rolling Airframe Missile	66.7	56.8	51.3	31
STANDARD	Missile (Air Defense)	224.0	178.1	237.6	32
TOMAHAWK	Cruise Missile	245.8	140.2	199.7	33
TRIDENT II	Submarine Launched Ballistic Missile	346.3	308.5	385.6	34
<b><u>Marine Corps</u></b>					
JAVELIN	AAWS-M	38.6	58.0	83.5	35
<b><u>DoD-wide/Joint</u></b>					
AMRAAM	Advanced Medium Range Air-to-Air Missile	178.9	206.2	234.4	36
JASSM	Joint Air-to-Surface Standoff Missile	160.7	129.3	135.0	37
JSOW	Joint Standoff Weapon	193.3	181.6	265.9	38
AIM-9X	Sidewinder	74.5	109.1	118.9	39
<b><u>VESSELS</u></b>					
<b><u>Navy</u></b>					
DDG-51	AEGIS Destroyer	3,723.7	3659.3	2,904.3	40
NSSN	New Attack Submarine	1,229.9	2,909.1	2,302.5	41
SSN-21	Seawolf Attack Submarine	757.0	224.8	70.2	42
<b><u>TRACKED COMBAT VEHICLES</u></b>					
<b><u>Army</u></b>					
M1A2	Abrams Tank Upgrade	540.4	634.4	691.8	43
M2A3	Bradley Base Sustainment	333.6	300.6	361.0	44
Crusader	Artillery Systems	234.1	320.2	310.9	45
<b><u>SPACE PROGRAMS</u></b>					
<b><u>Army</u></b>					
DSCS	Defense Satellite Communications System (Ground Systems)	112.4	107.3	126.8	46

**DEPARTMENT OF DEFENSE  
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		<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>Page No.</u>
<b><u>SPACE PROGRAMS</u></b>					
<b><u>Air Force</u></b>					
DSP	Defense Support Program	85.1	125.5	105.2	47
MLV	Medium Launch Vehicles	165.7	206.9	195.8	48
MILSTAR	Satellite Communications	659.7	628.0	550.9	49
NAVSTAR GPS	NAVSTAR Global Positioning System	274.3	249.6	258.6	50
Titan	Heavy Launch Vehicles	395.6	521.4	666.0	51
EELV	Evolved Expendable Launch Vehicle	44.3	87.0	283.6	52
SBIRS-H	Space Based Infrared System-High	193.0	316.5	538.4	53
SBIRS-L	Space Based Infrared System-Low	252.5	202.4	193.6	54
<b><u>OTHER PROGRAMS</u></b>					
<b><u>Army</u></b>					
FHTV	Family of Heavy Tactical Vehicles	246.3	119.1	189.6	55
FMTV	Family of Medium Tactical Vehicles	242.1	207.6	336.3	56
HMMWV	High Mobility Multipurpose Wheeled Vehicle	164.4	128.0	12.1	57
SADARM	Sense and Destroy Armor Munition	103.3	77.2	77.3	58
WAM	Wide Area Munition	35.4	34.2	32.8	59
<b><u>Air Force</u></b>					
SFW	Sensor Fuzed Weapon	168.2	166.6	129.6	60
WCMD	Wind Corrected Munitions Dispenser	46.1	29.5	21.5	61
<b><u>DoD-wide/Joint</u></b>					
BMD	Ballistic Missile Defense	3,703.8	3,844.6	4,001.6	62
JDAM	Joint Direct Attack Munition	85.9	117.4	118.5	63
UAV	Unmanned Aerial Vehicles	537.4	651.5	619.8	64
<b><u>U.S. Special Operations Forces</u></b>					
MK V	Special Operations Craft	50.3	54.0	-	65

# AIRCRAFT PROGRAMS ARMY

## ARMED OH-58D (KIOWA WARRIOR)

**Description:** The Armed OH-58D is a single engine, 4-bladed main rotor helicopter that has been modified with television, Thermal Imaging System (TIS), and laser rangefinder-designator incorporated into a Mast-Mounted Sight (MMS). Designed to operate autonomously, the Kiowa Warrior provides command and control, target acquisition, target designation, reconnaissance, and light attack capabilities under day, night, and adverse weather conditions. It provides adjustment of conventional artillery as well as spotting and laser designation for precision guided munitions. The Kiowa Warrior is the Army's first fully digitized helicopter. The prime contractor is Bell Helicopter of Fort Worth, TX and the engines are produced by Detroit Diesel Allison of Indianapolis, IN.

**Mission:** The Kiowa Warrior provides commanders with a survivable, real-time combat information, command and control reconnaissance, security, aerial observation, and target acquisition-designation system to operate with attack helicopter, air cavalry, and field artillery units during day, night, and other reduced visibility conditions.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	197.1	(-)	57.1	(-)	40.4
Initial Spares		<u>1.4</u>		<u>-</u>		<u>-</u>
Subtotal		198.5		57.1		40.4
<b>RDT&amp;E</b>		1.1		-		-
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		199.6		57.1		40.4



**AIRCRAFT PROGRAMS  
ARMY**

**Longbow Apache**

**Description:** Longbow Apache consists of a mast mounted Fire Control Radar (FCR) integrated into an upgraded and enhanced AH-64 airframe. The FCR effort is being accomplished by a joint venture team comprised of two companies, Lockheed-Martin Corporation, Bethesda, MD and Northrup Grumman, Baltimore, MD. The Boeing Company of Mesa AZ is the prime contractor for the Longbow Apache program.

**Mission:** Longbow Apache will provide the AH-64 a fire and forget HELLFIRE capability, greatly increasing weapon system effectiveness and aircraft survivability.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	403.1	(-)	499.7	(-)	611.8
Initial Spares		<u>7.4</u>		<u>13.2</u>		<u>21.9</u>
Subtotal		410.5		512.9		633.7
<b>RDT&amp;E</b>		10.8		-		-
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		421.3		512.9		633.7

# AIRCRAFT PROGRAMS ARMY

## RAH-66 COMANCHE HELICOPTER

**Description:** The RAH-66 Comanche Helicopter program will develop an armed reconnaissance helicopter which will replace the Army's rapidly aging fleet of OH-58 and AH-1 aircraft. Two development contracts have been awarded. Airframe and avionics development is being done by a joint venture between United Technologies Corporation, Sikorsky Aircraft Division of Stratford, CT and Boeing Vertol of Philadelphia, PA. Engine development for the T-800 growth engine is being done by Light Helicopter Turbine Engine Company, a partnership of Allied Signal Aerospace, Phoenix, AZ and Allison Engine Company, Indianapolis, IN.

**Mission:** The RAH-66 will be used for armed reconnaissance and light attack missions.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	-	(-)	-	(-)	-
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		-		-		-
<b>RDT&amp;E</b>		325.3		272.2		367.8
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		325.3		272.2		367.8

**AIRCRAFT PROGRAMS  
ARMY**

**UH-60 UTILITY HELICOPTER (BLACKHAWK)**

**Description:** The BLACKHAWK is a twin engine, single-rotor helicopter that is designed to carry a crew of four and a combat equipped squad of eleven or an equal cargo load. It is also capable of carrying external loads of up to 6,000 lbs. The prime contractor is Sikorsky Aircraft of Stratford, CT.

**Mission:** The BLACKHAWK provides a highly maneuverable, air transportable, troop carrying helicopter for all intensities of conflicts, without regard to geographical location or environmental conditions. It moves troops, equipment and supplies into combat and performs aeromedical evacuation and multiple functions in support of the Army's air mobility doctrine for employment of ground forces.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(34)	280.4	(28)	290.3	(22)	218.8
Initial Spares		<u>6.5</u>		<u>2.5</u>		<u>1.9</u>
Subtotal		286.9		292.8		220.7
<b>RDT&amp;E</b>		-		-		-
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		286.9		292.8		220.7



# **AIRCRAFT PROGRAMS** **NAVY**

## **AV-8B (V/STOL) HARRIER**

**Description:** The AV-8B Harrier is a single-seat, single-engine, transonic jet aircraft capable of Vertical/Short Takeoff and Landing (V/STOL). This V/STOL capability, combined with high performance and combat effectiveness, provides the Marine Corps forces with a quick reaction weapon system. Prime contractors are Boeing Corporation of St. Louis, MO on the airframe, Rolls Royce, Ltd. of Bristol, England on the engine, and British Aerospace of Kingston, England on the aft fuselage. The last year of new production for the AV-8B aircraft for the United States was FY 1992. The budget request supports initiation of a 3-year multiyear procurement for airframes.

**Mission:** The mission of the AV-8B aircraft is to provide close air support for Marine Corps forces in amphibious operations, and direct support of ground forces from austere forward bases.

### **Program Acquisition Costs** **(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(12)	354.0	(12)	294.4	(12)	338.4
<b>Initial Spares</b>		<u>5.1</u>		<u>24.7</u>		<u>25.7</u>
<b>Subtotal</b>		359.1		319.1		364.1
<b>RDT&amp;E,N</b>		15.8		10.7		13.8
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		374.9		329.8		377.9

# AIRCRAFT PROGRAMS NAVY

## CH-60 Helicopter

**Description:** The CH-60 is a versatile twin-engine helicopter used to maintain forward deployed fleet sustainability through rapid airborne delivery of materials and personnel, and to support amphibious operations through search and rescue coverage. The budget request supports participation in the Army's multiyear procurement.

**Mission:** The CH-60 will conduct vertical replenishment (VERTREP), day/night ship-to-ship, ship-to-shore, and shore-to-ship external transfer of cargo; internal transport of passengers, mail and cargo, vertical onboard delivery; air operations; and day/night search and rescue.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	-	-	(2)	29.7	(4)	132.2
<b>Initial Spares</b>		<u>-</u>		<u>-</u>		<u>7.8</u>
<b>Subtotal</b>		-		29.7		140.0
<b>RDT&amp;E,N</b>		6.9		31.8		12.8
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		6.9		61.5		152.8

**AIRCRAFT PROGRAMS  
NAVY**

**EA-6B PROWLER**

**Description:** The EA-6B Prowler is a 4-seat twin engine derivative of the A-6 Attack aircraft that is equipped with a computer-controlled electronic surveillance and control system and high power jamming transmitters. The budget request includes funding to modify the EA-6B aircraft.

**Mission:** The mission of the EA-6B aircraft is to provide all weather electronic countermeasures (ECM) in support of Navy and Marine Corps strike forces.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Modifications</b>	(-)	218.0	(-)	113.3	(-)	75.7
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		218.0		113.3		75.7
<b>RDT&amp;E,N</b>		37.5		-		65.4
<b>Military Construction</b>		—		1.1		—
<b>TOTAL</b>		255.5		114.4		141.1



**AIRCRAFT PROGRAMS  
NAVY**

**E-2C HAWKEYE**

**Description:** The E-2C Hawkeye is an all weather, carrier-based airborne early warning aircraft. Prime contractors are Northrop-Grumman Corporation of St. Augustine, FL for the airframe and General Motors Corporation, Allison Division, Indianapolis, IN for the engine. The budget request supports initiation of a 5-year multiyear procurement.

**Mission:** The missions of the E-2C aircraft are airborne early warning, strike and control, radar surveillance, search and rescue assistance, communication relay and automatic tactical data exchange.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(4)	295.4	(4)	311.7	(3)	389.3
<b>Initial Spares</b>		<u>2.0</u>		<u>6.0</u>		<u>20.0</u>
<b>Subtotal</b>		297.4		317.7		409.3
<b>RDT&amp;E,N</b>		60.0		62.5		47.8
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		357.4		380.2		457.1

# AIRCRAFT PROGRAMS NAVY

## F/A-18E/F HORNET

**Description:** The F/A-18E/F will be a twin-engine, high-performance, multi-mission, tactical aircraft for deployment in Navy and Marine Corps fighter and attack squadrons. The development of the F/A-18E/F began in FY 1991. The F/A-18E/F possesses enhanced range, payload and survivability features compared with the current C/D model aircraft. It will replace the F/A-18C/D and will partially replace the A-6E and the F-14A. Prime contractors are Boeing Aircraft Corporation of St. Louis, MO for the airframe and General Electric Company, Aircraft Engine Division of Lynn, MA for the engines. Northrop Corporation, Hawthorne, CA is a major subcontractor. The budget request provides for completion of flight test and for the third, and last, low rate initial production procurement.

**Mission:** The F/A-18E/F will be a strike fighter capable of performing the following missions: strike, interdiction, close air support, fighter escort, and fleet air defense.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(12)	2,038.1	(20)	2,112.8	(30)	2,897.2
<b>Initial Spares</b>		<u>80.9</u>		<u>79.9</u>		<u>118.1</u>
<b>Subtotal</b>		2,119.0		2,192.7		3,015.3
<b>RDT&amp;E,N</b>		330.8		263.0		260.0
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		2,449.8		2,455.7		3,275.3

**AIRCRAFT PROGRAMS  
NAVY**

**T-45 GOSHAWK**

**Description:** The T-45 GOSHAWK is a derivative of the British Aerospace HAWK aircraft. The T-45 Training System will integrate aircraft, simulators, academics, and a training management system into a replacement for current intermediate and advanced phase training aircraft. The prime contractor is Boeing Aircraft Company, St. Louis, MO; British Aerospace of Kingston, England provides the center and aft fuselage; and Rolls Royce, Ltd of Bristol, England provides the engine. The budget request supports initiation of a 5-year multiyear procurement for the airframes.

**Mission:** The T-45 will provide undergraduate jet pilot training for Navy and Marine Corps aviators.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(12)	288.5	(15)	284.7	(15)	342.8
<b>Initial Spares</b>		<u>21.1</u>		<u>13.2</u>		<u>21.1</u>
<b>Subtotal</b>		309.6		297.9		363.9
<b>RDT&amp;E,N</b>		0.1		-		-
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		309.7		297.9		363.9



# AIRCRAFT PROGRAMS AIR FORCE

## B-2 STEALTH BOMBER

**Description:** The B-2 is an intercontinental bomber that employs low observable technology to achieve its mission. The bomber is an all-wing, two-place aircraft with twin weapon bays. Four General Electric F-118-GE100 aircraft engines power the B-2. The F-118 engine is a derivative of the F-100 engine, currently used in the F-16 fighter and is in the 19000 lb thrust class. Northrop-Grumman Corporation, Pico Rivera, CA is the prime contractor for the B-2; the engines are manufactured by General Electric, Evendale, OH. The FY 1999 budget request includes funding to continue development and for various production support costs.

**Mission:** The primary mission of the B-2 is to enable any theater commander to hold at risk and, if necessary, attack an enemy's war-making potential, especially those time critical targets which, if not destroyed in the first hours or days of a conflict, would allow unacceptable damage to be inflicted on the friendly side. The B-2 will also retain its potential as a nuclear bomber, reinforcing the deterrence of nuclear conflict.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	85.8	(-)	323.4	(-)	189.9
Initial Spares		<u>12.8</u>		<u>13.0</u>		<u>55.2</u>
Subtotal		98.6		336.4		245.1
<b>RDT&amp;E</b>		585.6		335.3		131.2
<b>Military Construction</b>		<u>-</u>		<u>27.1</u>		<u>-</u>
<b>TOTAL</b>		684.2		698.8		376.3

**AIRCRAFT PROGRAMS  
AIR FORCE**

**C-17 AIRLIFT AIRCRAFT**

**Description:** The C-17 program is a wide body, four engine, turbofan aircraft that meets the nations's strategic airlift requirement to modernize the U.S. strategic airlift capability. The C-17 is capable of performing the entire spectrum of airlift missions and is specifically designed to effectively and efficiently operate in both the intertheater and intratheater environments. The major contractors are Boeing Aerospace, Long Beach, CA (Airframe) and Pratt-Whitney, East Hartford, CT (Engine). The FY 1999 budget requests funding for operational development and to continue aircraft production for a total procurement of 120 aircraft and to make product improvements.

**Mission:** The C-17 will provide outsize intratheater airland/airdrop capability not available in the current airlift force and eventually replace C-141s as they begin to retire after the turn of the century.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(8)	2,075.2	(9)	2,130.5	(13)	2,900.5
Initial Spares		<u>5.2</u>		<u>70.7</u>		<u>112.3</u>
Subtotal		2,080.4		2,201.2		3,012.8
<b>RDT&amp;E</b>		71.4		104.6		123.1
<b>Military Construction</b>		<u>80.9</u>		<u>6.5</u>		<u>71.0</u>
<b>TOTAL</b>		2,232.7		2,312.3		3,206.9

# AIRCRAFT PROGRAMS AIR FORCE

## C-130J AIRLIFT AIRCRAFT

**Description:** The Hercules C-130J is planned to be a tactical airlift aircraft that will address the need to modernize the U.S. tactical airlift capability. The C-130J will be capable of performing a number of tactical airlift missions including deployment and redeployment of troops and/or supplies within and between command areas in a theater of operation, aeromedical evacuation, air logistic support and augmentation of strategic airlift forces. The major contractors will be Lockheed Corporation, Marietta, GA for the airframe and General Motors Corporation, Allison Division, Indianapolis, IN for the engine. The FY 1999 budget requests funding to continue production.

**Mission:** The mission of the C-130J is the immediate and responsive air movement and delivery of combat troops and supplies directly into objective areas through airlanding, extraction, airdrop, or other delivery techniques; and the air logistic support of all theater forces, including those engaged in combat operations. These aircraft will eventually replace C-130Es as they begin to retire after the turn of the century.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(1)	62.7	(-)	23.5	(1)	63.8
<b>Initial Spares</b>		<u>6.1</u>		<u>.7</u>		<u>62.0</u>
<b>Subtotal</b>		68.8		24.2		125.8
<b>RDT&amp;E</b>		-		4.0		-
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		68.8		28.2		125.8

# AIRCRAFT PROGRAMS AIR FORCE

## CIVIL AIR PATROL (CAP) AIRCRAFT

**Description:** The Civil Air Patrol aircraft will be new or used propeller-driven commercial aircraft to be provided to the Civil Air Patrol by the Air Force from various contractors. When originally established, the Civil Air Patrol was to receive its operating equipment from excess inventory in the Department of Defense. In recent years, the inventory of propeller-driven aircraft in the Department of Defense has been decreasing, allowing for fewer aircraft for modernization of the CAP. The Congress, in recognition of this fact, has permitted the Air Force to procure used or new aircraft specifically for transfer to the CAP. The FY 1999 budget requests funding for the continued procurement of aircraft.

**Mission:** The CAP aircraft will be utilized by the CAP to perform its mission of emergency search and rescue services and to provide aeronautical education for its members and the public.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(27)	2.6	(27)	3.0	(27)	2.6
Initial Spares		—		—		—
Subtotal		2.6		3.0		2.6
<b>RDT&amp;E</b>		-		-		-
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		2.6		3.0		2.6

**AIRCRAFT PROGRAMS  
AIR FORCE**

**E-8C JOINT STARS**

**Description:** The E-8C Joint Surveillance Target Attack Radar System (Joint STARS) aircraft will be a Boeing 707 class aircraft modified to operate a target attack radar system to detect and track both moving and fixed enemy ground targets. Northrop-Grumman Corporation, Melbourne, FL is the prime contractor. The FY 1999 budget requests funding for continuation of development activities and aircraft production.

**Mission:** Joint STARS will provide battlefield surveillance, attack planning and control and post-attack damage assessment.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(2)	534.7	(1)	327.7	(2)	463.1
<b>Initial Spares</b>		—		<u>71.6</u>		<u>67.5</u>
<b>Subtotal</b>		534.7		399.3		531.3
<b>RDT&amp;E</b>		206.1		118.3		123.8
<b>Military Construction</b>		<u>18.6</u>		<u>18.7</u>		—
<b>TOTAL</b>		759.4		536.3		654.4



**AIRCRAFT PROGRAMS  
AIR FORCE**

**F-15E EAGLE MULTI MISSION FIGHTER**

**Description:** The F-15E is a twin-engine, two man crew, fixed swept wing aircraft. The F-15E maintains the basic F-15 air superiority characteristics while adding air-to-surface weapons capability. Prime contractors are Boeing of St. Louis, MO, for the airframe, and Pratt and Whitney of East Hartford, CT for the engine. The FY 1999 budget request provides for continuation of development activities.

**Mission:** The F-15E performs both air superiority and all-weather, deep penetration, and night/under-the-weather attack with large air-to-surface weapon payloads.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(6)	247.0	(5)	232.0	(-)	-
<b>Initial Spares</b>		____-		____-		____-
<b>Subtotal</b>		247.0		232.0		-
<b>RDT&amp;E</b>		152.4		129.8		104.2
<b>Military Construction</b>		<u>16.6</u>		____-		____-
<b>TOTAL</b>		416.0		361.8		104.2

**AIRCRAFT PROGRAMS  
AIR FORCE**

**F-16 FALCON MULTI-MISSION FIGHTER**

**Description:** The F-16 is a single seat, fixed wing, high performance fighter aircraft powered by a single engine. The advanced technology features include a blended wing body, reduced static margin, and fly-by-wire flight control system. Prime contractors are Lockheed-Martin of Fort Worth, TX for the airframe and Pratt and Whitney of East Hartford, CT and General Electric, Evendale, OH for the engine. The budget request provides for continued development activities.

**Mission:** The F-16 aircraft is a lightweight, high performance, multipurpose fighter capable of performing a broad spectrum of tactical air warfare tasks at affordable cost well into the next century.

**Program Acquisition Costs  
(Dollars in Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(6)	154.3	(3)	80.7	(-)	-
Initial Spares		—-		—-		—-
Subtotal		154.3		80.7		-
<b>RDT&amp;E</b>		125.5		95.3		125.1
<b>Military Construction</b>		—-		—-		—-
<b>TOTAL</b>		279.8		176.0		125.1

**AIRCRAFT PROGRAMS  
AIR FORCE**

**F-22 ADVANCED TACTICAL FIGHTER (ATF)**

**Description:** The F-22 ATF program will develop the next generation air superiority fighter for introduction in the late-1990's. The F-22 is being designed to penetrate enemy airspace and achieve first-look, first-kill capability against multiple targets. The contractors for Engineering & Manufacturing Development are Lockheed, Marietta, GA, and Ft. Worth, TX; Boeing, Seattle, WA for the airframe; and Pratt & Whitney, West Palm Beach, FL for the engine. The FY 1999 budget request provides for continued development funding and the first production buy of two aircraft.

**Mission:** The F-22 will enhance U.S. air superiority capability against the projected threat and will eventually replace the F-15 aircraft.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	7.5	(-)	73.2	(2)	785.3
<b>Initial Spares</b>		—		—		25.6
<b>Subtotal</b>		7.5		73.2		810.9
<b>RDT&amp;E</b>		1,815.5		1,958.9		1,582.2
<b>Military Construction</b>		4.4		—		—
<b>TOTAL</b>		1,827.4		2,032.1		2,393.1

**AIRCRAFT PROGRAMS  
AIR FORCE**

**VCX (C-37A)**

**Description:** The small VCX (C-37A) is a long range executive passenger jet that will provide worldwide air transportation for the Vice President, cabinet members, congressional delegations, Presidential emissaries and other high ranking dignitaries of the United States. The large VCX (C-32A) is a Boeing 757-200 passenger jet. The large VCX aircraft are being acquired under a lease with option to purchase contract. These aircraft will replace the current C-137 fleet. The seven aircraft C-137 fleet averages 35 years, is costly to operate and lacks the performance and safety features common in commercial airlines. The FY 1999 budget request funds the procurement of two large VCX aircraft. The C-37A aircraft contractor is Gulfstream, Savannah, GA. The C-32A aircraft contractor is Boeing, Seattle, WA.

**Mission:** The mission of the VCX is to provide safe, secure and reliable air transportation for the Vice President, cabinet members, congressional delegations, Presidential emissaries and other high ranking dignitaries of the United States. The small VCX (C-37A) will also serve as backup to VC-25A aircraft for presidential missions.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(2)	99.1	(2)	185.7	(2)	160.9
<b>Initial Spares</b>		<u>3.5</u>		<u>5.9</u>		<u>-</u>
<b>Subtotal</b>		102.6		191.6		160.9
<b>RDT&amp;E</b>		-		-		-
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		102.6		191.6		160.9

# AIRCRAFT PROGRAMS AIR FORCE

## AIRBORNE LASER

**Description:** The Airborne Laser (ABL), designated the YAL-1A Attack Laser Aircraft, provides a rapidly deployable airborne platform equipped with a long-range laser weapon. Installed on a modified Boeing 747-400F freighter, ABL will employ an advanced beam control and atmospheric compensation system to precisely direct a multi-megawatt high-energy chemical laser on a boosting missile. The new weapon system is being designed and built by the Boeing led Team ABL, which includes TRW for high-energy lasers, Lockheed Martin for beam and fire control, and Boeing for system integration, aircraft modification, and battle management. The ABL program planned production is for 7 ABL (2 refurbished test aircraft and 5 production aircraft). The FY 1999 budget request includes funding to continue the design, fabrication, integration, and test (lethal demonstration) of a prototype ABL weapon system.

**Mission:** The primary mission of the ABL is to provide a rapidly deployable airborne platform equipped with long-range laser weapon, capable of autonomously detecting, acquiring, tracking, identifying, and negating both liquid and solid-fueled Theater Ballistic Missiles (TBM) during the boost phase of flight. The ABL is listed as a core Upper Tier Theater Missile Defense program worked in coordination with the Ballistic Missile Defense Organization (BMDO).

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		—		—		—
Subtotal		-		-		-
<b>RDT&amp;E</b>		56.0		151.4		292.2
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		56.0		151.4		292.2

**AIRCRAFT PROGRAMS  
DOD-WIDE/JOINT**

**JOINT PRIMARY AIRCRAFT TRAINING SYSTEM (JPATS)**

**Description:** The Joint Primary Aircraft Training System (JPATS) is a joint Air Force/Navy program to replace both Service fleets of primary trainer aircraft (T-37 and T-34, respectively) and associated Ground Based Training Systems (GBTS). The program includes the purchase of aircraft, simulators, ground-based training devices, training management systems, instructional courseware, and logistics support. The contractor is Beech Aircraft Corporation, Wichita, KS (airframe). The FY 1999 budget provides funding for continued development activities and production aircraft.

**Mission:** The mission of the JPATS is to support joint Air Force and Navy specialized undergraduate pilot training. It will support training of student aviators in the fundamentals of flying prior to transition into advanced training.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item						
<i>Air Force</i>	(15)	66.9	(22)	75.9	(19)	107.1
Initial Spares		—		—		—
Subtotal		66.9		75.9		107.1
<b>RDT&amp;E</b>						
<i>Air Force</i>		41.1		54.9		44.4
<i>Navy</i>		<u>1.9</u>		<u>.4</u>		<u>.6</u>
Subtotal		43.0		55.3		45.0
<b>Military Construction</b>						
<i>Air Force</i>		—		<u>2.5</u>		—
<b>Total</b>						
<i>Air Force</i>		108.0		133.3		151.5
<i>Navy</i>		1.9		.4		.6
TOTAL		109.9		133.7		152.1

# AIRCRAFT PROGRAMS DOD-WIDE/JOINT

## JOINT STRIKE FIGHTER (JSF)

**Description:** The Joint Strike Fighter (JSF), formerly the Joint Advanced Strike Technology (JAST) Program, was established to support development of an affordable next-generation strike fighter for the Air Force, Marine Corps, Navy and U.S. allies. This joint program will facilitate the development of affordable operational concepts for next-generation strike fighter aircraft and related systems and transition key technologies and common components to support future joint strike fighter requirements while reducing cost and risk. The Navy and Air Force will each provide approximate equal shares of development funding for the program during the Future Years Defense Program (FYDP). The Defense Advanced Research Projects Agency (DARPA) also contributed funding for the concept flight demonstration effort. The program will develop several technology demonstrator aircraft to explore different technologies that could be incorporated into future aircraft. From these technology demonstrators, prototype aircraft will be developed to help choose the next-generation strike fighter, possibly using advanced short takeoff and vertical landing (ASTOVL) technology. The FY 1999 budget requests continued development funds in support of pre-engineering and manufacturing development (EMD) efforts. Dem/Val contracts have been awarded to Lockheed Martin of Bethesda, MD, Boeing of Seattle, WA for the airframe and Pratt and Whitney, FL for the propulsion system.

**Mission:** JSF will ultimately result in the acquisition of one or more aircraft to replace Air Force F-16s, Marine Corps AV-8Bs, and F/A-18s and provide the Navy a first day of war survivable strike fighter to complement the F/A-18E/F.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
Subtotal		-		-		-
<b>RDT&amp;E</b>						
Navy		243.3		449.7		463.4
Air Force		251.6		432.3		456.1
Defense-Wide		70.3		23.0		-
<b>Military Construction</b>		-		-		-
<b>TOTAL</b>		565.2		905.0		919.5

**AIRCRAFT PROGRAMS**  
**Defense-Wide/Joint**

**V-22 OSPREY**

**Description:** The V-22 Osprey is a tilt-rotor, vertical takeoff and landing aircraft designed to meet the amphibious/vertical assault needs of the Marine Corps, long range special operations forces (SOF) missions for USSOCOM, and the strike rescue needs of the Navy. The aircraft will be capable of flying 2,100 miles with one refueling, giving the services the advantage of a V/STOL aircraft that could rapidly self-deploy to any location in the world. Procurement objective is 458 (360 MV-22 aircraft for the Marine Corps; 50 CV-22 aircraft for USSOCOM; and 48 HV-22 aircraft for the Navy). The MV-22 will replace the CH-46E and CH-53D helicopters. The contractors are Textron, Inc., Bell Helicopter Division, Fort Worth, TX and Boeing Vertol, Philadelphia, PA, for the air vehicle and General Motors Corporation, Allison Division, Indianapolis, IN, for the engine. The budget request supports aircraft procurement for the Marine Corps and weapons system trainer procurement for the Air Force.

**Mission:** The V-22 mission includes airborne assault, vertical lift, combat search and rescue, and special operations.

**Program Acquisition Costs**  
**(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
MV-22 (USMC)	5	659.4	7	672.6	7	664.8
CV-22 (AF)	-	-	-	-	-	22.3
Initial Spares	-	<u>57.4</u>	-	<u>21.4</u>	-	<u>27.6</u>
Subtotal		716.8		694.0		714.7
RDT&E,N		605.6		512.1		355.1
MILCON		<u>-</u>		<u>-</u>		<u>-</u>
Total		1,322.4		1,206.1		1,069.8



# **MISSILE PROGRAMS ARMY**

## **ARMY TACTICAL MISSILE SYSTEM (ATACMS)**

**Description:** ATACMS is a surface-to-surface deep fire guided missile used to attack high value targets such as missile sites and command, control and communications complexes. The ATACMS missiles are fired from modified Multiple Launch Rocket System (MLRS) launchers. The Block I variants are armed with an anti-personnel/anti-material warhead. The Block IA integrates Global Positioning System (GPS) into the guidance system of the missile to provide more accurate information for orientation of the missile in position and azimuth. The Block IA carries fewer M74 bomblets than the Block I (down to 300 from 950) which gives the Block IA a range approximately twice that of the ATACMS Block I missile. The ATACMS Block II will be the delivery vehicle for the guided antiarmor BAT submunition. The FY 1999 buy is a combination of 96 Block IA and 30 Block II missiles. The ATACMS prime contractor is the Lockheed Martin Vought Systems Corporation of Dallas, TX.

**Mission:** To provide deep fires in near all-weather conditions, day or night. All ATACMS missiles are capable of effectively engaging high priority targets at ranges beyond the capability of cannons and rockets. The Block I configurations will be used to attack tactical surface-to-surface missile sites, air defense systems, logistics elements and other fixed facilities. The ATACMS Block II will be used against deep enemy armor.

### **Program Acquisition Costs (\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(97)	135.3	(100)	93.5	(126)	139.7
Initial Spares		<u>1.0</u>		<u>1.0</u>		—
Subtotal		136.3		94.5		139.7
 RDT&E		72.6		88.6		51.8
 Military Construction		—		—		—
 TOTAL		208.9		183.1		142.4

# **MISSILE PROGRAMS ARMY**

## **BRILLIANT ANTI-ARMOR (BAT) SUBMUNITION**

**Description:** The BAT is a dual-sensor (acoustics and infrared) smart submunition that autonomously seeks, identifies, and destroys moving armored targets. The BAT submunition is an unpowered, aerodynamically stable, glider approximately 36 inches long, 5.5 inches in diameter, and weighing 44 pounds. BAT's large footprint is designed to compensate for target location errors. A pre-planned product improvement (P3I) BAT combines acoustic, millimeter wave radar, and imaging infrared sensors through a common aperture to improve BAT's performance against cold stationary targets and other postulated high payoff targets, as well as enhancing its countermeasure resistance and inclement weather performance. BAT and P3I BAT are carried deep into enemy territory by the Block II variant of the Army Tactical Missile System (ATACMS). Northrop Grumman Corporation is the prime contractor for the BAT submunition, while Lockheed Martin Vought Systems Corporation is the contractor for the ATACMS Block II missile.

**Mission:** Deep attack of moving armored vehicles before they can influence the battle. In addition, P3I BAT's mission includes cold stationary targets, multiple rocket launchers, and surface-to-surface missile transporter erector launchers.

Program Acquisition Costs (\$ Millions)							
		<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
		<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>							
<b>Item</b>	<b>(-)</b>	<b>-</b>		<b>(-)</b>	<b>-</b>	<b>(420)</b>	<b>100.4</b>
<b>Initial Spares</b>		<b>—</b>		<b>—</b>			<b>—</b>
<b>Subtotal</b>		<b>-</b>		<b>-</b>			<b>100.4</b>
<b>RDT&amp;E</b>							
		<b>94.8</b>		<b>140.8</b>			<b>83.1</b>
<b>Military Construction</b>							
		<b>—</b>		<b>—</b>			<b>—</b>
<b>TOTAL</b>		<b>94.8</b>		<b>140.8</b>			<b>183.5</b>

**MISSILE PROGRAMS  
ARMY**

**JAVELIN ADVANCED ANTITANK WEAPON SYSTEM-MEDIUM (AAWS-M)**

**Description:** The JAVELIN Advanced Antitank Weapon System-Medium is a manportable fire and forget weapon system that will replace the existing DRAGON antiarmor missile system in Army infantry, combat engineer, and scout units. JAVELIN is highly lethal against tanks with conventional and reactive armor. Special features of JAVELIN are the choice of top attack or direct fire mode, integrated day/night sight, soft launch permitting fire from enclosures, and imaging infrared seeker. Procurement funds buy both missiles and the Command Launch Units (CLU). The prime contractor is the Raytheon TI and Lockheed Martin Javelin Joint Venture at Lewisville, TX and Orlando, FL.

**Mission:** To defeat armor targets.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(1,020)	194.8	(1,080)	139.1	(3,316)	320.0
Initial Spares		—		—		4.7
Subtotal		194.8		139.1		324.7
<b>RDT&amp;E</b>		5.9		7.8		5.3
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		200.7		146.9		330.0

**MISSILE PROGRAMS  
ARMY**

**LASER HELLFIRE (HELLFIRE II) MISSILE**

**Description:** Hellfire II is an optimized version of the basic laser-guided air-to-ground Hellfire missile. Hellfire is effective against electro-optical countermeasures, is shipboard compatible, and has an improved warhead. It is launched from all models of the AH-64 Apache, the OH-58D Kiowa Warrior, and Marine Corps AH-1W Cobra helicopters. The Army plans to use it on the RAH-66 Comanche. Work is being accomplished by Hellfire Systems Limited Liability Company, consisting of Lockheed Martin Corporation, Orlando, FL and Boeing (formerly Rockwell International Corporation), Duluth, GA.

**Mission:** Laser Hellfire (Hellfire II) provides a heavy antiarmor and surgical strike capability for attack helicopters.

**Program Acquisition Costs  
(\$ Million)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(1800)	107.1	(-)	9.5	(-)	14.3
<b>Initial Spares</b>		_____ -		_____ -		_____ -
		107.1		9.5		14.3
<b>RDT&amp;E</b>		3.7		-		-
<b>Military Construction</b>		_____ -		_____ -		_____ -
<b><u>TOTAL</u></b>		110.8		9.5		14.3

**MISSILE PROGRAMS  
ARMY**

**Longbow Hellfire Missile**

**Description:** Longbow Hellfire integrates fire and forget technology in the Hellfire missile by incorporating a millimeter wave radar seeker in the Hellfire II aft section bus. The fire and forget guidance, which allows the helicopter to launch and then immediately remask, improves weapons system survivability by minimizing exposure to enemy fire. The Longbow system will be used on the Apache and Comanche helicopters. The primary advantages of the Longbow Hellfire missile include adverse weather capability (rain, snow, fog, smoke, and battlefield obscurants); millimeter wave countermeasures survivability; an advanced warhead capable of defeating all projected armor threats into the 21st century; and the capability of reprogramming the missile to adapt to changing threats and mission requirements. Work is being accomplished by the Longbow Limited Liability Company, a joint venture of Lockheed Martin Corporation, Orlando, FL and Northrup Grumman, Huntsville, AL.

**Mission:** Longbow Hellfire will provide an adverse weather, fire and forget, heavy antiarmor capability for the Apache and Comanche helicopters.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(1,056)	249.3	(1,100)	232.7	(2,000)	346.3
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		249.3		232.7		346.3
<b>RDT&amp;E</b>		-		-		-
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		249.3		232.7		346.3

**MISSILE PROGRAMS  
ARMY**

**MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)**

**Description:** The Multiple Launch Rocket System (MLRS) consists of a tracked, self-propelled, launcher loader, disposable rocket pods, and fire control equipment firing 227 mm ballistic rockets loaded with anti-personnel/anti-materiel bomblets. Procurement of the Extended Range MLRS Rocket began in FY 1996. The prime contractor is Lockheed Martin Vought Systems Corporation of Dallas, TX.

**Mission:** To neutralize or suppress enemy field artillery and air defense systems and supplement cannon artillery fires.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Rockets	(1,500)	45.3	(528)	19.3	(522)	16.5
Launchers	(-)	103.6	(35)	118.7	(24)	85.4
Initial Spares		—		1.0		6.9
Subtotal		148.9		139.0		108.8
<b>RDT&amp;E</b>		61.7		36.2		20.2
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		210.6		175.2		129.0

**MISSILE PROGRAMS  
ARMY**

**AVENGER**

**Description:** The Avenger is a light-weight highly mobile and transportable surface-to-air missile system consisting of a Stinger missile launcher mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV). Part of the Forward Area Air Defense System (FAADS), the Avenger is designed to counter hostile cruise missiles, unmanned aerial vehicles, and low-flying, high-speed aircraft. The Avenger is equipped with eight ready Stinger missiles and .50 caliber machine gun. It has a two-man crew and can operate in day or night, clear or adverse weather conditions. The Avenger prime contractor is Boeing Aerospace, Huntsville, AL.

**Mission:** Provides line of sight low altitude air defense protection.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(93)	62.4	(-)	7.2	(19)	35.3
Initial Spares		-		-		-
Subtotal		62.4		7.2		35.3
<b>RDT&amp;E</b>		-		-		-
<b>Military Construction</b>		-		-		-
<b>TOTAL</b>		62.4		7.2*		35.3

\*In FY 1998, Congress appropriated \$7.2 million in the Avenger system line for the slew-to-cue modification.

**MISSILE PROGRAMS  
NAVY**

**ROLLING AIRFRAME MISSILE (RAM)**

**Description:** The Rolling Airframe Missile (RAM) is a high fire-power, low cost, lightweight complementary self-defense system to engage anti-ship capable missiles. The prime contractor was Hughes Missile Systems Company, Tucson, AZ, which was recently acquired by Raytheon Corporation.

**Mission:** The mission of the RAM is to provide high firepower close-in defense of combatant and auxiliary ships by utilizing a dual mode, passive radio frequency/infrared missile in a compact 21 cell launcher.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(135)	46.9	(100)	41.0	(100)	44.8
Initial Spares		<u>1.0</u>		<u>2.2</u>		<u>2.3</u>
Subtotal		47.9		43.2		47.1
<b>RDT&amp;E</b>		18.8		13.6		4.2
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		66.7		56.8		51.3



**MISSILE PROGRAMS  
NAVY**

**STANDARD MISSILE**

**Description:** The STANDARD missile family consists of various air defense missiles including supersonic, medium and extended range, surface-to-air and surface-to-surface missiles. The prime contractor is Raytheon Corporation, Lowell, MA., which recently acquired Hughes Missile Systems Company.

**Mission:** The mission of the STANDARD missile family is to provide all-weather, anti-aircraft and surface-to-surface armament for cruisers, destroyers and guided missile frigates.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(127)	209.4	(114)	176.4	(120)	225.7
Initial Spares		<u>5.4</u>		<u>1.2</u>		<u>10.6</u>
Subtotal		214.8		177.6		236.3
<b>RDT&amp;E</b>		9.2		.5		1.3
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		224.0		178.1		237.6

**MISSILE PROGRAMS  
NAVY**

**TOMAHAWK**

**Description:** The TOMAHAWK cruise missile weapon system is a long-range conventionally or nuclear armed system which is sized to fit torpedo tubes and capable of being deployed from a variety of surface ship and submarine platforms. The prime contractor is Hughes Missile Systems Company, Tucson, AZ. Last all-up-round buy in FY 1998. Tomahawk Baseline Improvement Program (TBIP), currently in RDT&E, commences procurement in FY 1999.

**Mission:** The mission of the TOMAHAWK is to provide a long-range cruise missile launched from a variety of platforms against land and sea targets.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(155)	102.2	(65)	50.0	(114)	129.8
Initial Spares		<u>4.8</u>		<u>1.4</u>		<u>3.2</u>
Subtotal		107.0		51.4		133.0
<b>RDT&amp;E</b>		138.8		88.8		66.7
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		245.8		140.2		199.7

**MISSILE PROGRAMS  
NAVY**

**TRIDENT II**

**Description:** The TRIDENT II (D-5) is a submarine launched ballistic missile with greater range, payload capability and accuracy than the TRIDENT I. The major contractor is Lockheed Martin Missiles and Space Company, Sunnyvale, CA.

**Mission:** The mission of the TRIDENT II is to deter nuclear war by means of assured retaliation in response to a major attack on the U.S. and to enhance nuclear stability by providing no incentive for enemy first strike.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(7)	313.0	(5)	267.7	(5)	323.5
<b>Initial Spares</b>		<u>3.4</u>		<u>1.7</u>		<u>5.5</u>
<b>Subtotal</b>		316.4		269.4		329.0
<b>RDT&amp;E</b>		29.9		39.1		56.6
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		346.3		308.5		385.6

**MISSILE PROGRAMS  
MARINE CORPS**

**JAVELIN ADVANCED ANTITANK WEAPON SYSTEM-MEDIUM (AAWS-M)**

**Description:** The JAVELIN Advanced Antitank Weapon System-Medium will replace the existing DRAGON as the infantry medium antitank weapon for the Marine Corps. It is a manportable fire and forget weapon system for the dismounted infantry capable of defeating both conventional and reactive armor. Highly lethal, the JAVELIN can operate in day/night adverse weather conditions, and in the presence of battlefield obscurants. Special features of JAVELIN are the choice of top attack or direct fire mode, integrated day/night sight, soft launch permitting fire from enclosures, and imaging infrared seeker. Procurement funds buy both missiles and Command Launch Units (CLU). The prime contractor is the Raytheon TI and Lockheed Martin Javelin Joint Venture at Lewisville, TX and Orlando, FL.

**Mission:** To defeat armor targets.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(141)	38.2	(380)	57.8	(741)	82.8
Initial Spares		-		-		.5
		<hr/>		<hr/>		<hr/>
Subtotal		38.2		57.8		83.3
<b>RDT&amp;E</b>		.4		.2		.2
<b>Military Construction</b>		-		-		-
		<hr/>		<hr/>		<hr/>
<b>TOTAL</b>		38.6		58.0		83.5

**MISSILE PROGRAMS  
DOD-WIDE/JOINT**

**ADVANCED MEDIUM RANGE AIR-TO- AIR MISSILE (AMRAAM)**

**Description:** The Advanced Medium Range Air-to-Air Missile (AMRAAM) is an all-weather, all-environment radar guided missile developed to improve capabilities against very low-altitude and high-altitude, high-speed targets in an electronic countermeasures environment. AMRAAM is a joint program led by the Air Force. The prime contractor is Raytheon Corporation, Lowell, MA., which recently acquired Hughes Missile Systems Corporation. The FY 1999 program provides for continuation of production.

**Mission:** The mission of the AMRAAM is to destroy low and high altitude, high-speed enemy targets in an electronic countermeasures environment.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<i>Air Force</i>	(133)	110.6	(173)	104.0	(180)	114.6
<i>Navy</i>	(100)	50.3	(120)	55.3	(115)	62.6
<b>Item Subtotal</b>	(233)	160.9	(293)	159.3	(295)	177.2
<i>Air Force</i>		3.9		1.1		2.7
<i>Navy</i>		2.3		.4		.9
<b>Initial Spares Subtotal</b>		6.2		1.5		3.6
<b>Procurement Subtotal</b>		<u>167.1</u>		<u>160.8</u>		<u>184.4</u>
<b>RDT&amp;E</b>						
<i>Air Force</i>		9.7		39.9		45.1
<i>Navy</i>		2.1		5.5		4.9
<b>RDT&amp;E Subtotal</b>		11.8		45.4		50.0
<b>Military Construction</b>		-		-		-
<i>Air Force</i>		124.2		145.0		162.4
<i>Navy</i>		54.7		61.2		72.0
<b>TOTAL</b>		178.9		206.2		234.4

**MISSILE PROGRAMS  
DOD-WIDE/JOINT**

**JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM)**

**Description:** The Joint Air-to-Surface Standoff Missile (JASSM) is a joint Air Force and Navy development program led by the Air Force to provide a conventional precision guided, long range standoff cruise missile that can be delivered from both fighters and bombers. The program definition and risk reduction contract was awarded in FY 1997 with a downselect scheduled for FY 1998. The prime contractors are Boeing Aerospace, St. Louis, MO, and Lockheed Martin Integrated Systems, Inc., Orlando, FL. The FY 1999 budget request provides for the start of Engineering and Manufacturing Development (EMD).

**Mission:** The mission of the JASSM is to destroy targets from a long range standoff position deliverable by both fighters and bombers.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
<b>RDT&amp;E</b>						
Air Force		160.7		123.5		132.9
Navy		<hr/>		<hr/>		<hr/>
		-		3.8		2.1
Subtotal		160.7		129.3		135.0
<b>Military Construction</b>		<hr/>		<hr/>		<hr/>
		-		-		-
TOTAL		160.7		129.3		135.0

**MISSILE PROGRAMS  
DOD-WIDE/JOINT**

**JOINT STANDOFF WEAPON (JSOW)**

**Description:** The Joint Standoff Weapon (JSOW - AGM-154) program is a joint development effort to provide day, night and adverse weather environment munition capability. The JSOW has three variants and development is shared between the Navy and the Air Force. The JSOW baseline development (BLU-97 Submunition) is led by the Navy and provides a day, night, and all-weather environment munition. The JSOW BLU-108 development is led by the Air Force and incorporates the Sensor Fuzed Weapon (SFW), providing a "smart" JSOW munition. The JSOW unitary warhead development is led by the Navy and provides terminal accuracy and a man-in-the-loop data link. Flexible variants on a common truck reduces integration costs. The prime contractor is Texas Instruments, Lewisville, TX. The FY 1999 budget request continues production.

**Mission:** JSOW is a primary standoff precision guided munition. The day/night, adverse weather capability provides continuous munitions operations from a survivable standoff range.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<i>Air Force</i>	(-)	8.0	(44)	19.6	(100)	52.1
<i>Navy</i>	(100)	81.0	(135)	62.0	(328)	125.2
<b>Item Subtotal</b>	(100)	89.0	(179)	81.6	(428)	177.3
<b>Initial Spares (Navy)</b>		-		-		.5
<b>Subtotal</b>		89.0		81.6		177.8
<b>RDT&amp;E</b>						
<i>Air Force</i>		22.0		22.0		15.1
<i>Navy</i>		82.3		78.0		73.0
<b>Subtotal</b>		104.3		100.0		88.1
<b>Military Construction</b>		-		-		-
<i>Air Force</i>		30.0		41.6		67.2
<i>Navy</i>		163.3		140.0		198.7
<b>TOTAL</b>		193.3		181.6		265.9

**MISSILE PROGRAMS  
DOD-WIDE/JOINT**

**AIM-9X, Sidewinder**

**Description:** The AIM-9X Sidewinder program is a joint Navy/Air Force program, with the Navy as the lead service, that provides the next generation short range air-to-air missile. The threshold aircraft are the F-15C/D and the F/A-18C/D using the Joint Helmet Mounted Cueing System. Objective aircraft include the F-16 and F-22. The AIM-9X program is a flagship program for Cost as an Independent Variable. A Milestone II Decision was made on December 13, 1996, proceeding into Engineering and Manufacturing Development (EMD). The current contractor is Raytheon Corporation, Lowell, MA., which recently acquired Hughes Missile Systems Corporation, the original contractor. The FY 1999 budget request includes funding to continue the EMD for the FY 2000 production.

**Mission:** The primary mission of the AIM-9X is a launch and leave, air combat munition that uses passive infrared energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-Air Missile.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<i>Air Force</i>	(-)	-	(-)	-	(-)	-
<i>Navy</i>	(-)	-	(-)	-	(-)	-
<b>RDT&amp;E</b>						
<i>Navy</i>		45.3		57.9		65.9
<i>Air Force</i>		<u>29.2</u>		<u>51.2</u>		<u>53.0</u>
<b>RDT&amp;E Subtotal</b>		74.5		109.1		118.9
<b>Military Construction</b>		-		-		-
<b>TOTAL</b>		<u>74.5</u>		<u>109.1</u>		<u>118.9</u>



**VESSEL PROGRAMS  
NAVY**

**DDG-51 AEGIS DESTROYER**

**Description:** The ARLEIGH BURKE Flight IIA Class Guided Missile Destroyer is 509 feet long and displaces 9,195 tons (full load). It is armed with a Vertical Launching System accommodating 96 missiles, including TOMAHAWK, SM-2 and ASROC. Prime features include the SPY-1D and SPS-67(V)3 radars, SQS-53C sonar, three MK-99 illuminators, 5"/54 rapid fire gun with SEAFIRE fire control system, SLQ-32 Electronic Warfare System and decoy launchers, and 6 torpedo tubes in 2 triple mounts. The ship also carries two LAMPS (Light Airborne Multi-Purpose System) Mk III helicopters. The DDG-51 is powered by four General Electric LM2500 gas turbines which can drive the ship in excess of 31 knots. The lead ship was awarded to Bath Iron Works, Bath, ME in FY 1985. Ingalls Shipbuilding Division of Pascagoula, MS has also been awarded contracts for follow-on ships. The FY 1999 budget supports the continuation of the FY 1998-2001 multi-year procurement of 12 DDG-51 ships.

**Mission:** The DDG-51 Class ships operate defensively and offensively as units of Carrier Battle Groups and Surface Action Groups, in support of Underway Replenishment Groups and the Marine Amphibious Task Force in multi-threat environments that include air, surface, and subsurface threats.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(4)	3,561.7	(4)	3,473.3	(3)	2,679.5
Outfitting		11.2		10.4		36.0
Post Delivery		<u>65.5</u>		<u>43.9</u>		<u>56.2</u>
Subtotal		3,638.4		3,527.6		2,771.7
<b>RDT&amp;E</b>		85.3		118.5		132.6
<b>Military Construction</b>		<u>-</u>		<u>13.2</u>		<u>-</u>
<b>TOTAL</b>		3,723.7		3,659.3		2,904.3

# VESSEL PROGRAMS NAVY

## NEW ATTACK SUBMARINE (NSSN)

**Description:** The NSSN program provides for the development of a new nuclear powered attack submarine to replace existing ships as they are retired. The NSSN will be 366 feet long and will displace 7,506 tons while submerged. The first NSSN is funded in FY 1998. The FY 1999 RDT&E funding provides for technology development for the NSSN. The FY 1999 amount funds the second NSSN as well as the long lead non-nuclear components for the third submarine.

**Mission:** NSSN is being designed to meet the potential threats of the next century in a multi-mission capable submarine that has the ability to provide covert sustained presence in denied waters. NSSN operational missions will include: surveillance, strike warfare, mine countermeasures, and anti-submarine warfare.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	775.7	(1)	2,530.1	(1)	2,002.9
Outfitting		-		-		-
Post Delivery		-		-		-
Subtotal		775.7		2,530.1		2,002.9
<b>RDT&amp;E</b>		454.2		379.0		299.6
<b>Military Construction</b>		-		-		-
<b>TOTAL</b>		1,229.9		2,909.1		2,302.5

**VESSEL PROGRAMS  
NAVY**

**SEAWOLF ATTACK SUBMARINE (SSN-21)**

**Description:** The Seawolf Attack Submarine program provides for the development and procurement of the most advanced and robust attack submarine built by the United States. It is approximately 353 feet long and displaces 9,150 tons of water while submerged. Three submarines are currently under construction at the Electric Boat Division of the General Dynamics Corporation in Groton, CT. The first ship, the USS Seawolf, has been delivered to the Navy. The SSN-23, procured in FY 1996 and the last of the Seawolf class, will provide the Navy with increased undersea firepower, as well as bridge the production between SSN-688's, Trident and Seawolf submarines currently being built and the New Attack Submarine in FY 1998.

**Mission:** The mission of the SSN-21 is to provide multi-mission submarine capabilities in the areas of surveillance, strike warfare, mine countermeasures, ASW, forward presence and deterrence.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	631.1	(-)	149.6	(-)	-
Outfitting		.8		1.5		11.5
Post Delivery		<u>23.0</u>		<u>5.6</u>		<u>19.5</u>
Subtotal		654.9		156.7		31.0
<b>RDT&amp;E</b>		102.1		68.1		39.2
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		757.0		224.8		70.2

# TRACKED COMBAT VEHICLES ARMY

## ABRAMS (M1) TANK UPGRADE PROGRAM

**Description:** The M1 Tank Upgrade program will provide continued modernization to the Abrams tank fleet by upgrading older M1 tanks to the M1A2 configuration. Upgrades include improved armor, a 120mm gun, a Commander's Independent Thermal Viewer, an Improved Commander's Weapon Station, digitized communications and nuclear, biological and chemical protection. The prime contractor is General Dynamics Land Systems of Sterling Heights, MI..

**Mission:** The mission of the M1 Upgrade program is to provide a main battle tank with increased survivability, mobility, firepower, and lethality for U.S. armor forces.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(120)	462.0	(120)	582.2	(120)	675.69
Initial Spares		<u>9.2</u>		<u>13.7</u>		<u>9.8</u>
Subtotal		471.2		595.8		685.4
<b>RDT&amp;E</b>		69.2		38.6		6.4
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		540.4		634.4		691.8

# TRACKED COMBAT VEHICLES ARMY

## BRADLEY BASE SUSTAINMENT PROGRAM

**Description:** The Bradley Upgrade program continues to modernize the Bradley Fighting Vehicle fleet. The program includes upgrading first and second-generation Bradley vehicles to the current M2A2(Operation Desert Storm) configuration as well as the M2A3 upgrade program that provides enhanced command and control, situational awareness, increased lethality and survivability and improved sustainability and supportability. The prime contractor is United Defense Limited Partnership, San Jose, CA.

**Mission:** The mission of the Bradley upgrade program is to provide a fighting vehicle system with enhanced command and control, situational awareness, lethality and sustainability.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	250.9	(-)	231.0	(-)	285.8
Initial Spares		<u>2.3</u>		<u>.3</u>		<u>7.1</u>
Subtotal		253.2		231.3		293.0
<b>RDT&amp;E</b>		85.4		69.3		68.0
<b>Military Construction</b>		-		-		-
		<u>          </u>		<u>          </u>		<u>          </u>
<b>TOTAL</b>		333.6		300.6		361.0

**TRACKED COMBAT VEHICLES  
ARMY**

**CRUSADER**

**Description:** Crusader, formerly the Advanced Field Artillery System (AFAS) and Future Armored Resupply Vehicle-Ammunition (FARV-A) are the Army's next generation Cannon Artillery System. Together, these systems will provide a fire power capability which will support the force commander's goal of dominating the maneuver battle and protecting the force. Crusader will incorporate advanced technologies to increase accuracy, rate of fire, survivability, mobility, and ammunition handling speed and to decrease crew size. The prime contractor is United Defense Limited Partnership, Minneapolis, MN.

**Mission:** The mission of the Crusader program is to provide advanced indirect fire support and artillery ammunition resupply capability to the maneuver force.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	-	(-)	-	(-)	-
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		-		-		-
<b>RDT&amp;E</b>		234.1		320.2		310.9
<b>Military Construction</b>		-		-		-
		<hr/>		<hr/>		<hr/>
<b>TOTAL</b>		234.1		320.2		310.9

**SPACE PROGRAMS  
ARMY**

**DEFENSE SATELLITE COMMUNICATIONS SYSTEM (GROUND SYSTEMS) (DSCS)**

**Description:** The Defense Satellite Communications System (Ground Systems) develops strategic and tactical Ground Subsystem equipment to support unique and vital Command, Control, Communications and Intelligence (C3I) systems for the worldwide Super High Frequency (SHF) Defense Satellite Communications System (DSCS) program. DSCS provides warfighters multiple channels of tactical connectivity as well as interface with strategic networks and national level decisionmakers.

**Mission:** DSCS provides SHF wideband and anti-jam satellite communications supporting critical national strategic and tactical C3I requirements.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	92.7	(-)	84.6	(-)	94.6
<b>Initial Spares</b>		<u>3.9</u>		<u>8.4</u>		<u>16.0</u>
<b>Subtotal</b>		96.6		93.0		110.6
<b>RDT&amp;E</b>		15.8		14.3		16.2
<b>Military Construction</b>		<u>-</u>		<u>-</u>		<u>-</u>
<b>TOTAL</b>		112.4		107.3		126.8

**SPACE PROGRAMS  
AIR FORCE**

**DEFENSE SUPPORT PROGRAM (DSP)**

**Description:** The Defense Support Program provides worldwide missile attack warning and surveillance. It specifically provides an early detection and warning of ballistic missiles and space launches during the boost phase. It is also capable of providing detection and reporting of nuclear detonations. Twenty-three DSP satellites have been procured, five of which remain to be launched. DSP-19 through DSP-22 will be launched with Titan IV boosters using an Inertial Upper Stage (IUS); DSP-23 will be launched with the heavy variant of the Evolved Expendable Launch Vehicle (EELV). The prime contractor for DSP is TRW, Los Angeles, CA. Aerojet, Los Angeles, CA makes the primary sensor.

**Mission:** Improves U.S. capability to detect and assess missile launches and detonations both in and outside of earth atmosphere.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	60.4	(-)	104.8	(-)	89.9
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		60.4		104.8		89.9
<b>RDT&amp;E</b>		24.7		20.7		15.3
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		85.1		125.5		105.2



**SPACE PROGRAMS  
AIR FORCE**

**MEDIUM LAUNCH VEHICLES (MLV)**

**Description:** Provides for procurement and launch of Medium Launch Vehicles (MLVs) for use in launching medium weight satellites into orbit. The prime contractor for the Delta MLV is Boeing, Huntington Beach, California. The prime contractor for the Atlas MLV is Lockheed Martin, Denver, Colorado.

**Mission:** The Delta MLV launches NAVSTAR Global Positioning System satellites and experimental satellites from the Space Test Program. The Atlas MLV launches Defense Satellite Communications System (DSCS) satellites.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(3)	154.7	(4)	201.8	(5)	188.4
Initial Spares		—		—		—
Subtotal		154.7		201.8		188.4
<b>RDT&amp;E</b>		11.0		5.1		7.4
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		165.7		206.9		195.8

**SPACE PROGRAMS  
AIR FORCE**

**MILSTAR**

**Description:** Milstar is a joint service program to develop and acquire communications satellites featuring Extremely High Frequency (EHF) transponders for survivable, jam-resistant, worldwide, secure communications for both strategic and tactical users. These satellites are launched with Titan IV boosters with a Centaur Upper Stage. The first two satellites were launched in 1994 and 1996 and provide low data rate communications. The remaining four satellites will be launched from 1999 through 2002 and will provide medium data rate communications. The prime contractor for the Milstar Program is Lockheed, Sunnyvale, California. Principal subcontractors are TRW, Redondo Beach, California, and Hughes, El Segundo, California.

**Mission:** The Milstar system will support the highly survivable, jam-resistant, worldwide, secure communications needs of the President and commanders for the command and control of U.S. strategic and tactical forces through all levels of conflict.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>
	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
<b>Procurement</b>			
<b>Item</b>	(-)       -	(-)       -	(-)       -
<b>Initial Spares</b>			
	_____	_____	_____
<b>Subtotal</b>	-	-	-
<b>RDT&amp;E</b>	659.7	628.0	550.9
<b>Military Construction</b>	_____-	_____-	_____-
<b>TOTAL</b>	659.7	628.0	550.9

**SPACE PROGRAMS  
AIR FORCE**

**NAVSTAR GLOBAL POSITIONING SYSTEM (NAVSTAR GPS)**

**Description:** The NAVSTAR Global Positioning System (NAVSTAR GPS) provides a global, three-dimensional positioning, velocity and time information system for aircraft, artillery, ships, tanks and other weapons delivery systems. Boeing, Seal Beach, California, manufactured the 28 Block II/IIA satellites, the last of which was launched in November 1997. Prime contractor for the 21 Block IIR satellites is Lockheed Martin, Valley Forge, Pennsylvania. The first Block IIR satellite was launched in mid 1997. Boeing, Seal Beach, California, is manufacturing 33 Block II satellites on a multiyear contract awarded in 1996. Blocks II, IIA, and IIR are launched with Delta boosters, and Block IIF will be launched with the Evolved Expendable Launch Vehicle (EELV). The fully operational GPS constellation consists of 24 satellites in orbit at all times.

**Mission:** To provide a global system of satellites for navigation and position locating purposes.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(3)	197.0	(3)	157.6	(-)	174.8
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		197.0		157.6		174.8
<b>RDT&amp;E</b>		77.3		92.0		83.8
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		274.3		249.6		258.6

**SPACE PROGRAMS  
AIR FORCE**

**TITAN SPACE LAUNCH VEHICLES**

**Description:** Provides for the procurement and launch of Titan IV and the refurbishment of Titan II Space Launch Vehicles. The Titan IV is used to launch the Department's heavier payloads and can accommodate either the Centaur upper stage or the Inertial Upper Stage (IUS). FY 1997 saw the first launch of the Titan IVB with upgraded solid rocket motors. A total of 40 Titan IV boosters have been procured, of which 17 remain to be launched over the next 6 years. Lockheed Martin, Denver, Colorado is the prime contractor. Alliant, Salt Lake City, Utah makes the solid rocket motors. Aerojet, Sacramento, California makes the liquid rocket engines.

**Mission:** Program provides the capability to launch critical DoD heavyweight operational payloads.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(-)	317.9	(-)	450.9	(-)	578.5
Initial Spares		—-		—-		—-
Subtotal		317.9		450.9		578.5
<b>RDT&amp;E</b>		77.7		70.5		87.4
<b>Military Construction</b>		—-		—-		—-
<b>TOTAL</b>		395.6		521.4		666.0

# SPACE PROGRAMS AIR FORCE

## EVOLVED EXPENDABLE LAUNCH VEHICLE (EELV)

**Description:** EELV will replace the current families of Delta, Atlas, and Titan IV expendable launch vehicles with a new, lower cost program for the acquisition of space launch services for 2002 and subsequent years. The goal of EELV is to reduce launch costs 25-50 percent over current systems by redesigning launch hardware and ground processing facilities and by introducing commercial business practices. The cost of developing EELV will be shared by the Air Force and the two EELV contractors. EELV began the Demonstration and Validation (Dem/Val) phase in December 1996 and will enter Engineering and Manufacturing Development (E&MD) in June 1998. It was originally envisioned that only one of the two Dem/Val contractors would continue into E&MD and production, but the acquisition strategy has recently been revised to continue both contractors into production. The two contractors are Boeing, Huntington Beach, California, and Lockheed, Denver, Colorado.

**Mission:** EELV will provide the DoD, the NRO, and other government and commercial purchasers of launch services with low cost, highly reliable access to space for both medium and heavy satellites.

### Program Acquisition Costs (\$ Millions)

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	-	(-)	-	(-)	-
<b>Initial Spares</b>		-		-		-
		<hr/>		<hr/>		<hr/>
<b>Subtotal</b>		-		-		-
<b>RDT&amp;E</b>		44.3		87.0		283.6
<b>Military Construction</b>		<hr/>		<hr/>		<hr/>
<b>TOTAL</b>		44.3		87.0		283.6

**SPACE PROGRAMS  
AIR FORCE**

**SPACE BASED INFRARED SYSTEM (SBIRS) - HIGH**

**Description:** SBIRS is a "system of systems" that will include both a High and a Low space segment and a consolidated ground processing system. SBIRS High will field a constellation of four satellites in geosynchronous orbit (GEO) and two satellites in highly elliptical orbit (HEO) to provide initial warning of a ballistic missile attack against the United States, its deployed forces, or its allies. SBIRS High will support National Missile Defense and will also be used to collect a variety of technical intelligence. The High segment, which will replace the Defense Support Program (DSP), entered Engineering and Manufacturing Development (E&MD) in October 1996. The first three GEO satellites and the first two HEO satellites will be procured with RDT&E appropriations. Subsequent satellite production will be funded with procurement appropriations. SBIRS High will be launched with a medium variant Evolved Expendable Launch Vehicle (EELV). Lockheed, Sunnyvale, California, is the prime contractor for SBIRS High.

**Mission:** SBIRS High will use new technologies to enhance detection and improve reporting of strategic and tactical ballistic missile launches.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	-	(-)	-	(-)	-
<b>Initial Spares</b>		-		-		-
		<hr/>		<hr/>		<hr/>
<b>Subtotal</b>		-		-		-
<b>RDT&amp;E</b>		193.0		316.5		538.4
<b>Military Construction</b>		<hr/>		<hr/>		<hr/>
<b>TOTAL</b>		193.0		316.5		538.4

**SPACE PROGRAMS  
AIR FORCE**

**SPACE BASED INFRARED SYSTEM (SBIRS) - LOW**

**Description:** SBIRS is a "system of systems" that will include both a High and a Low space segment and a consolidated ground processing system. SBIRS Low, formerly known as the Strategic Missile Tracking System (SMTS), will field a constellation of 24 satellites in low earth orbit (LEO) to provide midcourse tracking and discrimination data for National and Theater Missile Defense. SBIRS Low will enhance ground based radars for missile targeting and tracking for National Missile Defense. It will also be used for battlefield characterization and for technical intelligence. The program is currently in the Demonstration and Validation (Dem/Val) phase with two contractor teams planning to launch demonstration satellites in late 1999. One team consists of TRW, Redondo Beach, California, and Hughes, El Segundo, California, and the other team consists of Boeing, Seal Beach, California, and Lockheed, Sunnyvale, California. Only one of the two teams will be continued into Engineering and Manufacturing Development (E&MD).

**Mission:** SBIRS Low will use new technologies to provide midcourse tracking and discrimination data for defense against strategic and tactical ballistic missiles.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	-	(-)	-	(-)	-
<b>Initial Spares</b>		-		-		-
		<hr/>		<hr/>		<hr/>
<b>Subtotal</b>		-		-		-
<b>RDT&amp;E</b>		252.5		202.4		193.6
<b>Military Construction</b>		<hr/>		<hr/>		<hr/>
<b>TOTAL</b>		252.5		202.4		193.6

**OTHER PROGRAMS  
ARMY**

**FAMILY OF HEAVY TACTICAL VEHICLES (FHTV)**

**Description:** The FHTV consists of the Palletized Load System (PLS), Heavy Equipment Transporter System (HETS) and Heavy Expanded Mobility Tactical Truck (HEMTT). The PLS consists of a 16.5-ton tactical vehicle composed of a truck (10x10 with central tire inflation system (CTIS)) with integral self load/ unload capability, 16.5-ton companion trailer and demountable cargo beds (flatracks). HETS consists of the M1070 tractor (8x8 w/CTIS) and the M1000 semitrailer (70-ton). The HEMTT is a 10-ton (8x8) which comes in five configurations (M977-Cargo w/Crane, M978-Fuel Tanker 2500 gallons, M983-Tractor, M9841A1-Wrecker, M985-Cargo w/Heavy Crane). The prime contractor is Oshkosh Truck Corporation of Oshkosh, WI.

**Mission:** PLS is a key transportation component of the Maneuver Ammunition Distribution System (MOADS). PLS is assigned to self-propelled artillery units, Forward Support Battalions, and selected ammunition and transportation companies. HETS provides the transportation and evacuation of the M1 Main Battle Tank. HEMTT provides resupply of combat vehicles, helicopter and missile systems in combat support units across all tactical mobility levels.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(-)	241.4	(-)	114.3	(-)	189.6
<b>Initial Spares</b>		—-		—-		—-
<b>Subtotal</b>		241.4		114.3		189.6
<b>RDT&amp;E</b>		4.9		4.8		-
<b>Military Construction</b>		—-		—-		—-
<b>TOTAL</b>		246.3		119.1		189.6



**OTHER PROGRAMS  
ARMY**

**FAMILY OF MEDIUM TACTICAL VEHICLES (FMTV)**

**Description:** The FMTV is a family of diesel powered trucks in the 2 1/2 ton (4x4) and 5 ton (6x6) payload classes that will modernize and improve the existing medium-tactical wheeled vehicle fleet. This Non-Developmental Item (NDI) procurement capitalizes on current state of the art automotive technology including a diesel engine, automatic transmission, and central tire inflation system (CTIS). The FMTV consists of multiple body styles: cargo, wrecker, dump, tractor, airdrop, etc. The FMTV with its enhanced mobility, state of the art components, and logistics commonality between Light (4x4 LMTV) and Medium (6x6 MTV) will improve unit operational capabilities and reduce Operation and Support (O&S) costs. The prime contractor is Stewart and Stevenson, Inc. in Sealy, TX.

**Mission:** FMTV performs numerous unit mobility and unit resupply missions including the transport of equipment and personnel. FMTV's numerous models perform a wide variety of missions including cargo transport (cargo model), vehicle recovery operations (wrecker), construction (dump), line haul (tractor), and airdrop missions (Low Velocity Air Drop (LVAD) model). FMTV's support combat support and combat service support unit missions as well as civil disaster relief.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(1,807)	236.4	(1,213)	204.0	(2,038)	332.0
Initial Spares		—		—		4.3
Subtotal		236.4		204.0		332.0
<b>RDT&amp;E</b>		5.7		3.6		-
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		242.1		207.6		336.3

**OTHER PROGRAMS  
ARMY**

**HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV)**

**Description:** The High Mobility Multipurpose Wheeled Vehicle (HMMWV) is a light, highly mobile, diesel powered air transportable and air dropable, 4-wheel drive tactical vehicle. The HMMWV can be configured through the use of common components and kits to become a cargo/troop carrier, armament carrier, shelter carrier, ambulance, and TOW and Stinger weapons carrier. The prime contractor is AM General of Mishawaka, IN.

**Mission:** The HMMWV fulfills specific missions such as serving as the platform for several weapon systems and as an uparmored vehicle for scout and military police missions.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(1,871)	161.5	(1,768)	128.0	(110)	12.1
Initial Spares		-		-		-
		<hr/>		<hr/>		<hr/>
Subtotal		161.5		128.0		12.1
<b>RDT&amp;E</b>		2.9		-		-
<b>Military Construction</b>		-		-		-
		<hr/>		<hr/>		<hr/>
<b>TOTAL</b>		164.4		128.0		12.1

**OTHER PROGRAMS  
ARMY**

**SENSE AND DESTROY ARMOR (SADARM)**

**Description:** The 155MM Sense and Destroy Armor (SADARM) projectile is a fire and forget, multisensor smart munition designed to detect and destroy countermeasure armored vehicles, primarily self-propelled artillery. SADARM is delivered to the target area in 155MM artillery projectiles. Each projectile carries 2 SADARM submunitions. Once dispensed, each submunition detects targets using dual-mode millimeter-wave and infrared sensor and fires an explosively formed penetrator through the top of the target. These capabilities will be enhanced by the SADARM Product Improvements Program. SADARM is manufactured by Aerojet Electronic System Division, Azusa, CA.

**Mission:** The 155MM SADARM projectile provides enhanced fire/counterfire support against stationary, armored vehicles well beyond the forward line of troops. SADARM enables rapid engagement under inclement weather, degraded battlefield conditions and Nuclear, Biological, and Chemical (NBC) environments, both day and night.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(600)	93.6	(507)	66.4	(550)	56.5
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		93.6		66.4		56.5
<b>RDT&amp;E</b>		9.7		10.8		20.8
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		103.3		77.2		77.3

**OTHER PROGRAMS  
ARMY**

**HORNET (WIDE AREA MUNITION, M93)**

**Description:** The M93 HORNET (Wide Area Munition) is a smart, remotely-programmable antitank munition. It is one soldier portable with a weight of 35 pounds. It has the capability to recognize armor and heavy truck targets and to autonomously aim and launch its submunition at targets within 1000 meters. The M93 is designed for command and control of the arm/destroy functions. A product improvement program (PIP) will provide two-way command and control capability, redeployment capabilities, advanced sensors, and improved warhead to extend HORNET range, lethality, and effectiveness. The HORNET will be manufactured by Textron Defense Systems, Wilmington, MA.

**Mission:** The M93 HORNET supports high mobility/offensive operations. Its design for flexible/rapid deployment combined with cost effective logistics and a self covering minefield capability provides increased performance and lethality over current mines in the inventory.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(70)	10.0	(215)	15.0	(65)	9.6
Initial Spares		—		—		—
Subtotal		10.0		15.0		9.6
<b>RDT&amp;E</b>		25.4		19.2		23.2
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		35.4		34.2		32.8

**OTHER PROGRAMS  
AIR FORCE**

**SENSOR FUZED WEAPON (SFW)**

**Description:** The Sensor Fuzed Weapon (CBU-97/B), is a cluster munition designed for direct attack against armored targets. The SFW is manufactured by Textron Defense Systems, Wilmington, MA. The FY 1999 budget request continues production.

**Mission:** The objective of the SFW is to develop and produce a conventional munition capable of multiple kills per pass against operating armored vehicles, air defense units, and other support vehicles.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(542)	149.5	(556)	150.2	(300)	126.0
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		149.5		150.2		126.0
<b>RDT&amp;E</b>		18.7		16.4		3.6
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		168.2		166.6		129.6

**OTHER PROGRAMS  
AIR FORCE**

**WIND CORRECTED MUNITIONS DISPENSER (WCMD)**

**Description:** The Wind Corrected Munitions Dispenser (WCMD) guidance kit for the CBU-87/B, CBU-89/B and the CBU-97/B provides inertial navigation to correct for the effects of wind transients and ballistic errors caused by wind when these CBU munitions are released from medium to high altitudes. The FY 1999 budget request continues production.

**Mission:** The objective of the WCMD is to improve the war-fighting effectiveness of both bombers and fighters.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>
	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>	<u>Qty</u> <u>Amt</u>
<b>Procurement</b>			
Item (-)	-    (280)	12.0	(701)    13.9
Initial Spares	_____ -	_____ -	_____ -
Subtotal	-	12.0	13.9
<b>RDT&amp;E</b>	46.1	17.5	7.6
<b>Military Construction</b>	_____ -	_____ -	_____ -
<b>TOTAL</b>	46.1	29.5	21.5

**OTHER PROGRAMS  
DOD-WIDE/JOINT**

**BALLISTIC MISSILE DEFENSE (BMD)**

**Description:** The Ballistic Missile Defense (BMD) program provides for the acquisition of weapon systems capable of defending U.S. interests from ballistic missile attacks. The FY 1999 program emphasizes the development of the Theater Missile Defense (TMD) and the National Missile Defense (NMD) systems. The primary components of the TMD program are the Patriot Advance Capability - 3 (PAC-3) missile; the Theater High Altitude Area Defense (THAAD) system; the Navy Area Theater Ballistic Missile Defense (TBMD) system; and the Navy Theater-Wide (NWT) program. The FY 1999 BMD programs also provide for the continued development of technology leading to future deployment of a National Missile Defense (NMD) capability. The Airborne Laser program is provided separately in the Air Force Aircraft section.

**Mission:** To conduct research and development of defensive technologies and related systems that may enable the destruction of ballistic missiles and warheads in flight; to develop systems that protect U.S. and allied forces from a missile attack; and to develop a NMD capability.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>RDT&amp;E (BMDO)</b>						
National Missile Defense		811.4		941.1		950.5
THAAD		616.3		390.8		821.7
Support Technologies		370.2		409.4		465.8
Navy Area		300.4		278.8		245.8
Navy Theater Wide		304.2		419.4		190.4
Patriot PAC-3		382.8		198.3		137.3
MEADS		58.8		46.1		43.0
Other Programs*		516.2		597.8		324.4
Subtotal BMDO		3,360.3		3,281.7		3,178.9
<b>RDT&amp;E (AF) Airborne Laser</b>		56.0		151.4		292.2
<b>RDT&amp;E (Army) Aerostat</b>		25.7		33.0		103.9
Subtotal RDT&E		3,442.0		3,466.1		3,575.0
<b>Military Construction (BMDO)</b>		1.4		2.5		17.2
<b>Procurement (BMDO)</b>						
Patriot PAC-3	(-)	219.0	(-)	341.3	(-)	343.3
TMD BMC3	(-)	17.3	(-)	19.7	(-)	22.8
Hawk	(-)	15.0	(-)	-	(-)	-
Navy Area	(-)	9.1	(-)	15.1	(-)	43.3
Subtotal Procurement		260.4		376.0		409.4
<b>TOTAL BMD</b>		3,703.8		3,844.6		4,001.6

\* Includes Joint Theater Missile Defense, Family of Systems, Int'l Cooperative, and Boost Phase Intercept.

**OTHER PROGRAMS  
DOD-WIDE/JOINT**

**JOINT DIRECT ATTACK MUNITION**

**Description:** The Joint Direct Attack Munition (JDAM) program is a joint development effort led by the Air Force. The JDAM will improve the existing inventory of MK83, MK84 and BLU-109 weapons by integrating a Global Positioning System (GPS) inertial navigation guidance capability that improves accuracy and adverse weather capability. The prime contractor is Boeing Aerospace, St. Louis, MO. The FY 1999 budget request continues production.

**Mission:** This program will enhance current DoD conventional strike system capabilities by providing the ability to precisely attack time-critical, high value fixed, relocatable or maritime targets under adverse environmental conditions and from all altitudes.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item						
Air Force	(937)	23.0	(2,400)	54.9	(2,239)	53.2
Navy	(-)	-	(668)	28.6	(898)	41.4
Item Subtotal	(937)	23.0	(3,068)	83.5	(3,137)	94.6
Initial Spares		-		-		-
Subtotal		23.0		83.5		94.6
<b>RDT&amp;E</b>						
Air Force		32.9		21.9		12.2
Navy		<u>30.0</u>		<u>12.0</u>		<u>11.7</u>
RDT&E Subtotal		62.9		32.9		23.9
<b>Military Construction</b>						
		-		-		-
Air Force		55.9		76.8		65.4
Navy		30.0		40.6		53.1
TOTAL		85.9		117.4		118.5



**OTHER PROGRAMS  
DOD-WIDE/JOINT**

**UNMANNED AERIAL VEHICLES (UAV)**

**Description:** The Defense Airborne Reconnaissance Office is acquiring a family of Unmanned Aerial Vehicles (UAV) to satisfy tactical reconnaissance mission requirements. Each air vehicle system is being specifically tailored to conduct continuous overhead surveillance in all weather conditions during the day and night, in direct support of the Joint Forces Commander. The UAVs are equipped with electro-optical and Synthetic Aperture Radar (SAR), and other sensors to perform their mission. The systems being developed and procured are: Tactical UAV; Medium Altitude Endurance UAV (Predator); High Altitude Endurance UAV (Global Hawk); and the Low Observable High Altitude Endurance UAV (DarkStar).

**Mission:** The purpose of airborne reconnaissance UAVs is to collect and transmit intelligence information to the combat forces. The function of the UAVs in an airborne reconnaissance environment is to transport sensor, information-processing, and communications systems to locations where the desired information can be collected, to provide an acceptable level of survivability throughout the mission, and to return for repeated use.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
<b>Item</b>	(14)	105.2	(20)	138.3	(15)	115.0
<b>Initial Spares</b>		—		—		—
<b>Subtotal</b>		105.2		138.3		115.0
<b>RDT&amp;E</b>		432.2		513.2		504.8
<b>Military Construction</b>		—		—		—
<b>TOTAL</b>		537.4		651.5		619.8

**OTHER PROGRAMS  
U.S. SPECIAL OPERATIONS FORCES**

**MK V (SPECIAL OPERATIONS CRAFT)**

**Description:** Twenty MK V Special Operations Craft (SOC) will provide Naval Special Warfare with a C-5 air-transportable combatant craft (500 NM range) capable of supporting Special Operations Forces (SOF) in worldwide, coastal environments. The craft can be transported over land and aboard the C-5 using its own transporter system. The 82 foot SOC carries a crew of five and can transport 16 SEALs and their equipment. Funding includes procurement of the craft, transporters, deployment support packages, initial spares, weapons, communications and some Pre-Planned Product Improvement (P3I) modifications. The prime contractor is Halter Marine of New Orleans, LA.

**Mission:** The MK V SOC primary mission is to conduct medium range insertion/extraction of SOF in support of a joint or combined task force commander. The craft will also support surveillance, reconnaissance, and limited coastal patrol and interdiction taskings. The MK V is normally deployed in detachments of two craft along with a maintenance support team to a forward base of operations.

**Program Acquisition Costs  
(\$ Millions)**

	<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>	
	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>	<u>Qty</u>	<u>Amt</u>
<b>Procurement</b>						
Item	(6)	36.8	(6)	35.1	(-)	-
Initial Spares		<u>12.4</u>		<u>11.6</u>		<u>-</u>
Subtotal		49.2		46.7		-
<b>RDT&amp;E</b>		1.1		-		-
<b>Military Construction</b>		<u>-</u>		<u>7.3</u>		<u>-</u>
<b>TOTAL</b>		50.3		54.0		-